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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/600,154

06/20/2003

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EXAMINER

WEINTROP, ADAM S

ART UNIT

PAPER NUMBER

2109

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/600,154

Applicant(s)

DICKERSON ET AL.

Examiner

Adam S. Weintrop

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

On pages 2, 3, 4, 7, and 13, the word "NetBUI" is used. This is a typographical error and should be replaced with -- NetBEUI -- to represent the protocol of NetBIOS Extended User Interface.

Appropriate correction is required.

Claim Objections

2. **Claims 1-27 and 29-35** objected to because of the following informalities:

Regarding **claim 1**, the phrase "a second client system" on line 4 has already been defined and should be replaced with -- the second client system -- to establish proper antecedent basis.

Regarding **claim 11**, the term "log data" on line 2 has already been defined and should be replaced with -- the log data --.

Regarding **claim 12**, the term "a communication path" on line 3 has already been defined and should be replaced with -- the communication path --.

Regarding **claim 13**, the term "manufacturing system" on line 2 should be replaced with -- manufacturing equipment -- to establish antecedent basis with the "manufacturing equipment" of line 1.

Regarding **claim 15**, the term "a message packet" on line 3 has already been defined and should be replaced with -- the message packet --.

Regarding **claim 19**, the term "a message packet" on line 1 has already been defined and should be replaced with -- the message packet --.

Regarding **claim 25**, the term "a message packet" on line 1 has already been defined and should be replaced with -- the message packet --. Also, the term "the encrypted message" on line 2 has not been defined and should be replaced with -- an encrypted message --.

Regarding **claim 29**, the term "a priority" on line 2 has already been defined and should be replaced with -- the priority --.

Regarding **claim 32**, the word "configure" on line 2 should be replaced with -- configured -- to correct the grammatical error.

Regarding **claim 33**, the phrase "a sending client system" on line 2 should be replaced with -- the sending client system -- since it has already been defined.

Regarding **claims 35, 31, 18, and 4**, the word "NetBUI" on line 1 should be replaced with -- NetBEUI -- to represent the NetBIOS Extended User Interface protocol being referred to.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-9, 12-14, 15-22, 24-27, 28-31, and 32-35 rejected under 35 U.S.C. 101

because the claimed invention is directed to non-statutory subject matter.

Regarding **claims 1-9 and 12-14**, the claims are directed towards a system for message-passing including client systems that send, receive, and monitor. The acts of sending, receiving, and monitoring data are not tangible acts, and are therefore non-statutory. In order for a claim to be statutory, it must result in a useful, concrete, and tangible result such as displaying to a user, printing, or storing. The dependent claims do not add any real-world output and are rejected as well, except for claims 10 and 11 that store information and are therefore statutory.

Regarding **claims 15-22, and 24-27**, the claims are directed towards a method that generates, transmits, receives, and processes message data. The acts of generating, transmitting, receiving, and processing are not tangible acts, and are therefore non-statutory. In order for a claim to be statutory, it must result in a useful, concrete, and tangible result such as displaying to a user, printing, or storing. The dependent claims do not add any real-world output and are rejected as well, except for claim 23, which stores information and is therefore statutory.

Regarding **claims 28-31**, the claims are directed towards a client system that can transmit a message. The act of transmitting is not a tangible act, and is therefore non-statutory. In order for a claim to be statutory, it must result in a useful, concrete, and tangible result such as displaying to a user, printing, or storing. The dependent claims do not add any real-world output and are rejected as well.

Regarding **claims 32-35**, the claims are directed towards a client system that can receive and process a message. The acts of receiving and processing are not tangible acts, and are therefore non-statutory. In order for a claim to be statutory, it must result in a useful, concrete, and tangible result such as displaying to a user, printing, or storing. The dependent claims do not add any real-world output and are rejected as well.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 1-2, 9-11, 13-16, 23, 27-29, and 32-33** are rejected under 35 U.S.C. 102(e) as being anticipated by Schulze (US 6,671,570 B2).

Regarding **claim 1**, Schulze discloses a message-passing system, comprising:
A first client system configured to transmit a message packet containing a priority to a second client system (column 9, lines 16-24, where equipment sends messages, and column 15, lines 52-56, where the messages may contain “alarms”, seen as priority); and a second client system configured to receive the message packet from the first client system and process the message packet based on the priority (column 9,

lines 30-32, where the system receives the messages and column 15, lines 56-61, where the "alarm" event is processed accordingly).

Regarding **claims 2 and 16**, Schulze discloses the message-passing system of claim 1 and the method of claim 15, wherein the message packet is transmitted from the first client system to the second client system according to a transport protocol (column 7, lines 10-17, where the common standard of "SECS" is seen as a transport protocol since it communicates with the system and is able to carry messages).

Regarding **claim 9**, Schulze discloses the message-passing system of claim 1, further comprising a first message server coupling the first client system to the second client system, the first message server providing a communication path between the first client system and the second client system (column 9, lines 13-17, where the clients are connected through the communication bus which can consists of a software bridge or other type of interface device, equivalent to a message server since it constructs the communication path).

Regarding **claims 10 and 11**, Schulze discloses the message-passing system of claim 9, further comprising a log server coupled to the first message server, the log server configured to store log data for the message packet as required by claim 10 and also the message-passing system of claim 9, further comprising a diagnostics server coupled to the first message server, the diagnostics server configured to store log data for the message packet, as required by claim 11 (column 9, lines 32-36, where the database logs and stores information gathered and is connected to or incorporated into the system).

Regarding **claim 13**, Schulze discloses the message-passing system of claim 1, further comprising a manufacturing equipment having an associated parameter (column 4, lines 34-36 and column 4, lines 55-57, where the system is implemented in a semiconductor fabrication facility, seen as manufacturing equipment, and the messages transmitted involve equipment information, seen as parameters associated with the equipment), the manufacturing system coupled to the first client system (column 9, lines 17-22, where the equipment is coupled to an interface which allows message communication), wherein the first client system is configured to monitor the associated parameter (column 7, lines 19-22, where the system "subscribes" to information from the equipment, equivalent to monitoring equipment parameters), generate the priority based on the parameter (column 7, lines 31-37, where "alarms" are generated in the messages by the monitoring), generate the message packet containing the priority (column 7, lines 31-37, where "alarms" are generated in the messages by the monitoring), and transmit the message packet to the second client system (column 7, lines 37-42, where the system receives the messages transmitted to it and processes the messages).

Regarding **claim 14**, Schulze discloses the message-passing system of claim 13, wherein the manufacturing equipment comprises a semiconductor processing system (column 4, lines 34-40, where the system is developed for semiconductor fabrication).

Regarding **claim 15**, Schulze discloses a method of passing a message packet between a first client system and a second client system, the method comprising: a. generating a message packet containing a priority on the first client system (column 7,

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lines 31-37, where “alarms” are generated in the messages by the monitoring, and this takes place on a client system as seen in column 9, lines 16-24, where the equipment interfaces connect the equipment to the communication network); b. transmitting the message packet from the first client system to the second client system (column 7, lines 31-37, where messages are transmitted over the system bus from the manufacturing tools, seen as part of the client); receiving the message packet on the second client system (column 9, lines 30-32, where the system receives the messages); and processing the message packet on the second client system according to the priority (column 15, lines 52-65, where the processing takes into account the alarm status of the message).

Regarding **claim 23**, Schulze discloses the method of claim 15, further comprising storing log data for the message packet (column 9, lines 32-36, where the database logs and stores information gathered and is connected to or incorporated into the system).

Regarding **claim 27**, Schulze discloses the method of claim 15, further comprising before the step (a): a. reading a parameter associated with a manufacturing equipment (column 7, lines 19-22, where the system “subscribes” to information from the equipment, equivalent to monitoring equipment parameters); and b. generating the priority based on the parameter (column 7, lines 31-37, where “alarms” are generated in the messages by the monitoring).

Regarding **claim 28**, Schulze discloses a sending client system configured to transmit a message packet containing a priority to a receiving client system (column 9,

lines 16-24, where equipment sends messages, and column 15, lines 52-56, where the messages may contain "alarms", seen as priority), the receiving client system configured to process the message packet based on the priority (column 9, lines 30-32, where the system receives the messages and column 15, lines 56-61, where the "alarm" event is processed accordingly).

Regarding **claim 29**, Schulze discloses the sending client system of claim 28 comprising a messaging module, the messaging module configured to assign a priority to a message to form the message packet (column 7, lines 31-37, where "alarms" are generated in the messages by the monitoring, and forming the message packet is equivalent to simply constructing a message to be sent), the messaging module further configured to transmit the message packet to the receiving client system according to a transport protocol (column 7, lines 31-37, where messages are transmitted over the system bus from the manufacturing tools, seen as part of the client and column 7, lines 10-17, where the common standard of "SECS" is seen as a transport protocol since it communicates with the system and is able to carry messages).

Regarding **claim 32**, Schulze discloses a receiving client system configured to receive a message packet containing a priority from a sending client system (column 9, lines 30-32, where the system receives messages, and column 9, lines 55-62, where these messages may contain alarm signals, seen as priority messages), the receiving client system configured to process the message packet based on the priority (column 15, lines 52-65, where the processing takes into account the alarm status of the message).

Regarding **claim 33**, Schulze discloses the receiving client system of claim 32 comprising a messaging module, the messaging module configured to receive the message packet from a sending client system according to a transport protocol (column 9, lines 30-32, where the system receives the messages, which can inherently include a module that receives messages and column 7, lines 10-17, where the common standard of "SECS" is seen as a transport protocol since it communicates with the system and is able to carry messages), the messaging module further configured to process the message packet based on the priority (column 15, lines 52-65, where the processing takes into account the alarm status of the message).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 5-7 and 19-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Schulze (US 6,671,570 B2) in view of Saito et al. (US 2002/0064138 A1).

Regarding **claims 5-7 and 19-21**, Schulze discloses all of the limitations as described above except for using messages formatted in SGML, as required by claims 5 and 19, using XML, as required by claims 6 and 20, or having the message packet include text data as required by claims 7 and 21. The general concept of having

messages for semiconductor manufacturing control being formatted in SGML or XML or including text data is well known in the art as illustrated by Saito et al. Saito et al. describes a semiconductor manufacturing control system that monitors and reports data in an HTTP POST method. Saito et al. describes that this can include header information to describe what type of document is being sent, such as XML (which is part of SGML, being a standard general markup language), or include text data, as seen in section 0040, table 1. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Schulze with using an SGML, XML, or text data message as taught by Saito et al. in order to use another common standard to increase compatibility for message formatting as seen in Schulze's disclosure in column 7, lines 14-15.

8. **Claims 3-4, 17-18, 30-31, and 34-35** are rejected under 35 U.S.C. 103(a) as being unpatentable over Schulze (US 6,671,570 B2) in view of Ford's "Home Networking with Windows XP"

Regarding **claims 3-4, 17-18, 30-31, and 34-35**, Schulze discloses all of the limitations as described above except for using TCP/IP as the protocol as required by claims 3, 17, 30, and 34, or using NetBEUI for the protocol as required by claims 4, 18, 31, and 35. The general concept of using TCP/IP or NetBEUI as a communication protocol is well known in the art as illustrated by Ford. Ford writes that there are protocols to choose from to communicate upon in a network, such as TCP/IP or Net BEUI (page 8). It would have been obvious to one of ordinary skill in the art at the time of invention to modify Schulze with using TCP/IP or NetBEUI as taught by Ford in order

to have a standard protocol to increase compatibility as seen in Schulze's disclosure in column 7, lines 10-11.

9. **Claims 8 and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Schulze (US 6,671,570 B2) and Saito et al. (US 2002/0064138 A1) as applied to claims 6 and 20 above, and further in view of DOM Requirements.

Regarding **claims 8 and 22**, Schulze and Saito et al. teach all of the limitations as described above except for using a virtual object with XML in the message. The general concept of using a virtual object (defined by applicant to be a part of an XML message that includes text or executable instructions, or object data) in an XML message is well known in the art as illustrated by DOM Requirements. The DOM Requirements describe the Document Object Model that provides XML documents with manipulation events, and events that respond to a user entry (section 2.2-3.1). It would have been obvious to one of ordinary skill in the art at the time of invention to modify Schulze and Saito et al. with virtual objects in XML as taught by the DOM Requirements in order to fully take advantage of the XML structure as to increase information exchanged.

10. **Claims 12 and 24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Schulze (US 6,671,570 B2) in view of Grewal et al. (US 5,592,672).

Regarding **claims 12 and 24**, Schulze discloses all of the limitations as described above except for using a second message server and having a load balancing coupling the two message servers to the client systems, as required by claim 12, or transmitting the message based on the load of the message server and then transmitting the

message from the message server, as required by claim 24. The general concept of using load balancing in a message environment is well known in the art as illustrated by Grewal et al. Grewal et al. discloses a load balancing system for sending queued messages through the system. There exist multiple message servers, as seen in column 4, lines 57-59, with the front end processors seen as the message servers. There also exist a load balancer that routes the messages based on a server's load, as seen in column 5, lines 42-46, where the message is sent to the server with the lowest load, and once the message is sent to the server, it is assumed it will be delivered to the client to which the message is addressed. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Schulze with load balancing as taught by Grewal et al. in order increase efficiency of the servers by avoiding server overload.

11. **Claims 25-26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Schulze (US 6,671,570 B2) in view of Wood.

Regarding **claims 25-26**, Schulze discloses all of the limitations as described above except for having the messages encrypted before sending the message as required by claim 25, and decrypting the message upon processing the message as required by claim 26. The general concept of encrypting and decrypting messages in a message communication system is well known in the art as illustrated by Wood. Wood describes that mail messages can be encrypted using certain encryption technologies (page 75, lines 1-13), and with encrypting, comes decrypting information (page 78, lines 42-43). It would have been obvious to one of ordinary skill in the art at the time of

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invention to modify Schulze with encrypting and decrypting messages as taught by Wood in order to securely transmit messages and secure privacy in the system.

Conclusion

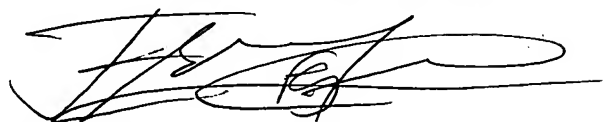
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam S. Weintrop whose telephone number is 571-270-1604. The examiner can normally be reached on Monday through Friday 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frantz Jules can be reached on 571-272-6681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AW 3/14/07

FRANTZ JULES
SUPERVISORY PATENT EXAMINER



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